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Search	Most Recent Queries	Time	Result
#15	Search VIC and probe and HCV Limits: Publication Date to 2001/10/04	13:42:35	0
#14	Search TAMRA and probe and HCV Limits: Publication Date to 2001/10/04	13:42:21	0
#12	Search TAMRA and probe Limits: Publication Date to 2001/10/04	13:39:14	13
#10	Search VIC and probe Field: All Fields, Limits: Publication Date to 2001/10/04	13:37:41	43
#8	Search Simpson AJ and Briones MR	13:11:15	4
#7	Search Simpson AJ 2000	13:10:15	34
#5	Search Lennon G and Soares MB	13:06:24	5
#4	Search Lennon G	13:06:00	107
#2	Search Smith TP and keele JW	13:03:33	19
#1	Search Smith TP 2001	13:02:42	30

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Services

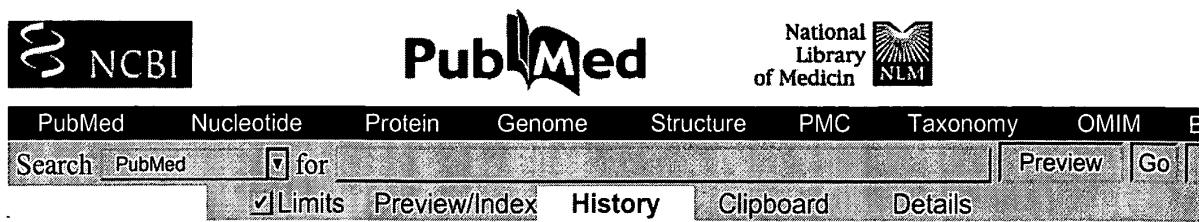
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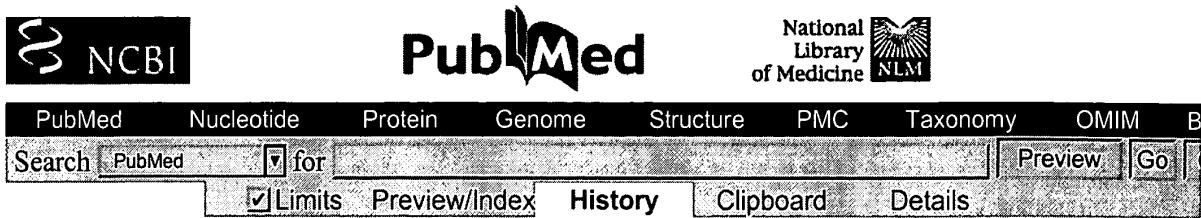
Search	Most Recent Queries	Time	Result
#33	Search Kleiber J[au] Limits: Publication Date to 2001/10/04	14:13:24	4
#25	Search HCV detection and reverse transcriptase and flurosence Limits: Publication Date to 2001/10/04	14:11:01	190
#24	Search HCV detection and reverse transcriptase Limits: Publication Date to 2001/10/04	14:06:20	190
#18	Search FAM and TAMRA Limits: Publication Date to 2001/10/04	13:48:57	23
#17	Search FAM and TAMAR Limits: Publication Date to 2001/10/04	13:45:17	0
#16	Search FAM and probe Limits: Publication Date to 2001/10/04	13:44:42	14
#15	Search VIC and probe and HCV Limits: Publication Date to 2001/10/04	13:42:35	0
#14	Search TAMRA and probe and HCV Limits: Publication Date to 2001/10/04	13:42:21	0
#12	Search TAMRA and probe Limits: Publication Date to 2001/10/04	13:39:14	13
#10	Search VIC and probe Field: All Fields, Limits: Publication Date to 2001/10/04	13:37:41	43
#8	Search Simpson AJ and Briones MR	13:11:15	4
#7	Search Simpson AJ 2000	13:10:15	34
#5	Search Lennon G and Soares MB	13:06:24	5
#4	Search Lennon G	13:06:00	107
#2	Search Smith TP and keele JW	13:03:33	19
#1	Search Smith TP 2001	13:02:42	30

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Search	Most Recent Queries	Time	Result
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#37 Search TagMam RT-PCR and HCV detection Limits: Publication Date to 2001/10/04	14:15:53	<u>267</u>
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#36 Search TagMam RT-PCR and HCV and fluoresgenic Limits: Publication Date to 2001/10/04	14:15:43	<u>0</u>
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#35 Search TagMam RT-PCR and HCV and FAM Limits: Publication Date to 2001/10/04	14:15:17	<u>0</u>
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#34 Search TagMam RT-PCR and HCV Limits: Publication Date to 2001/10/04	14:15:07	<u>878</u>
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#33 Search Kleiber J[au] Limits: Publication Date to 2001/10/04	14:13:24	<u>4</u>
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#25 Search HCV detection and reverse transcriptase and fluoresence Limits: Publication Date to 2001/10/04	14:11:01	<u>190</u>
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#24 Search HCV detection and reverse transcriptase Limits: Publication Date to 2001/10/04	14:06:20	<u>190</u>
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#18 Search FAM and TAMRA Limits: Publication Date to 2001/10/04	13:48:57	<u>23</u>
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#17 Search FAM and TAMAR Limits: Publication Date to 2001/10/04	13:45:17	<u>0</u>
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#16 Search FAM and probe Limits: Publication Date to 2001/10/04	13:44:42	<u>14</u>
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#15 Search VIC and probe and HCV Limits: Publication Date to 2001/10/04	13:42:35	<u>0</u>
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#14 Search TAMRA and probe and HCV Limits: Publication Date to 2001/10/04	13:42:21	<u>0</u>
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#12 Search TAMRA and probe Limits: Publication Date to 2001/10/04	13:39:14	<u>13</u>
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#10 Search VIC and probe Field: All Fields, Limits: Publication Date to 2001/10/04	13:37:41	<u>43</u>
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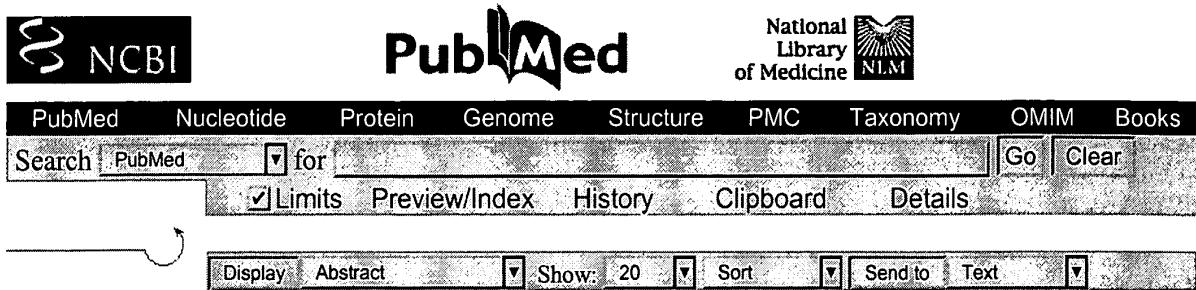
#8 Search Simpson AJ and Briones MR	13:11:15	<u>4</u>
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#7 Search Simpson AJ 2000	13:10:15	<u>34</u>
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#5 Search Lennon G and Soares MB	13:06:24	<u>5</u>
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#4 Search Lennon G	13:06:00	<u>107</u>
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#2 Search Smith TP and keele JW	13:03:33	<u>19</u>
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□1: *Tissue Antigens*. 1997 Dec;50(6):627-38.

Related Articles, Links

### Fluorotyping of HLA-C: differential detection of amplicons by sequence-specific priming and fluorogenic probing.

Luedek H, Blasczyk R.

Department of Internal Medicine, Bloodbank, Virchow-Klinikum, Humboldt-University, Berlin, Germany.

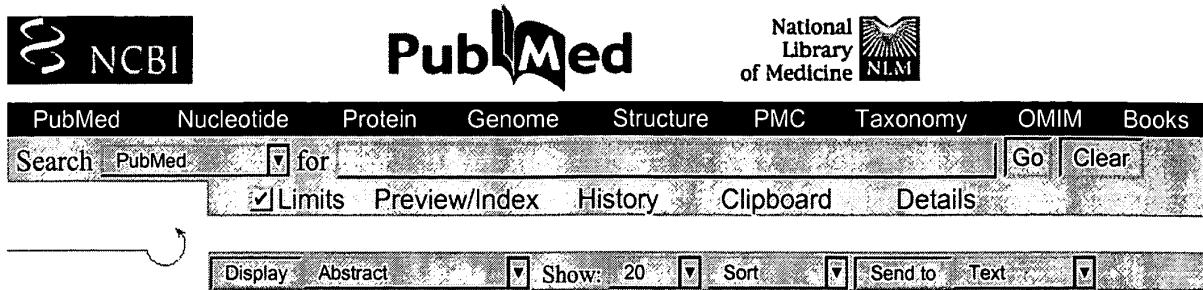
Conventional PCR-SSP, which is based on an agarose gel-based read-out, has the disadvantages of time-consuming post-PCR steps and low potential for automation. The aim of our study was to sort out these drawbacks by establishing a fluorescence-based PCR-SSP system for HLA-C. The assay relies on the sequence-specific identification of amplicons with individually labeled probes that are cleaved during successful PCR by the 5'-3' exonuclease activity of the Taq-DNA Polymerase. The oligonucleotides are labeled with a unique and spectrally resolvable fluorescent reporter dye at the 5' terminus (FAM or TET) and a common quencher dye at the 3' terminus (TAMRA). In case of amplification, the reporter escapes from the quenching control caused by the physical separation of the dyes, resulting in a significant increase of the reporter fluorescence. This allows simultaneous and differential detection of the specific HLA (FAM) and internal control (TET) product. The HLA-C fluorotyping information is based on the individual reporter fluorescence released by 18 PCR primer mixes. Using this method, we analyzed 145 samples previously typed with conventional PCR-SSP and found a concordance rate of 100%. Furthermore, fluorotyping revealed quantitative results that may indicate the presence of homozygosity by high signal intensities. This provided extra protection not to miss new alleles which are not amplified by the current primer mixes. These features as well as the capability of high sample throughput and the possibility of automation makes fluorotyping an attractive tool for PCR-based HLA typing.

PMID: 9458116 [PubMed - indexed for MEDLINE]

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Oct 2 2003 18:06:23



The screenshot shows the PubMed search interface. At the top, there are links for PubMed, Nucleotide, Protein, Genome, Structure, PMC, Taxonomy, OMIM, and Books. Below the links is a search bar with the text "Search PubMed for" and a dropdown menu showing "Limits" (selected), "Preview/Index", "History", "Clipboard", and "Details". To the right of the search bar are "Go" and "Clear" buttons. Below the search bar is a toolbar with "Display" (selected), "Abstract", "Show: 20" (with a dropdown menu), "Sort" (with a dropdown menu), "Send to" (with a dropdown menu), "Text", and a "Print" button.

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□1: Nucleic Acids Res. 1992 Sep 25;20(18):4873-80.

Related Articles, Links

## Two-label peak-height encoded DNA sequencing by capillary gel electrophoresis: three examples.

Chen D, Harke HR, Dovichi NJ.

Department of Chemistry, University of Alberta, Edmonton, Canada.

We report a modification to the peak-height encoded DNA sequencing technique of Tabor and Richardson. As in the original protocol, the sequencing reaction uses modified T7 polymerase with manganese rather than magnesium to produce very uniform incorporation of each dideoxynucleoside. To improve sequencing accuracy, two fluorescently labeled primers are employed in separate sequencing reactions. As an example, one sequencing reaction uses a FAM-labeled primer with dideoxyadenosine triphosphate and dideoxycytosine triphosphate; the concentrations of ddATP and ddCTP are adjusted to produce a 2:1 variation in the relative intensity of fragments. The second sequencing reaction uses a TAMRA labeled primer with dideoxythymidine triphosphate and dideoxyguanidine triphosphate; the concentrations of ddTTP and ddGTP are adjusted to produce a 2:1 variation in relative intensity of fragments. The pooled reaction products are separated by capillary gel electrophoresis and identified by one of three different detector systems. Use of a 2:1 peak height ratio typically produces a sequencing accuracy of 97.5% for the first 350 bases; a 3:1 peak height ratio improves accuracy to 99.5% for the first 400 bases. For these experiments, capillary electrophoresis is performed at an electric field of 200 V/cm; two to three hours are required to separate sequencing fragments up to 400 nucleotides in length.

PMID: 1408803 [PubMed - indexed for MEDLINE]

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□1: Anal Biochem. 1994 Nov 15;223(1):39-46.

Related Articles, Links

ELSEVIER  
FULL-TEXT ARTICLE

## High-resolution liquid chromatography of fluorescent dye-labeled nucleic acids.

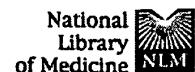
Oefner PJ, Huber CG, Umlauft F, Berti GN, Stimpfl E, Bonn GK.

Department of Genetics, Stanford University, California 94305-5120.

Using 100 mM of triethylammonium acetate as ion-pairing reagent, phosphodiester oligonucleotides labeled fluorescently at their 5' terminus could be separated successfully on alkylated nonporous 2.3-microns poly(styrene-divinylbenzene) particles by means of high-resolution liquid chromatography. Applying excitation wavelengths of 490, 520, 550, and 575 nm, respectively, optimum sensitivity was achieved for the fluorophores 5-carboxyfluorescein, 2',7'-dimethoxy-4',5'-dichloro-6-carboxyfluorescein, N,N,N',N'-tetramethyl-6-carboxyrhodamine, and 6-carboxy-X-rhodamine (FAM, JOE, TAMRA, and ROX, respectively) at emission wavelengths of 520, 550, 580, and 605 nm, respectively. With calibration curves being linear over at least three orders of magnitude, the lower detection limits were 0.5, 2, 2, and 3 fmol, respectively. Depending on the type of fluorescent dye attached, retention times increased in the order JOE < FAM < TAMRA < ROX. Subsequently, fluorescent oligonucleotides were employed to prime polymerase chain reactions (PCR). Again the fluorophores were found to increase the retention times of double-stranded nucleic acids, but to a lesser degree than those of single-stranded oligonucleotides. Using a single FAM label attached to one of the two PCR primers, the sensitivity of fluorescence detection was found to be approximately 1 fmol or 30-70 times higher than that of uv absorbance detection depending on the length of the PCR product. Since the technique allows the separation of PCR products differing only 4 to 8 base pairs in length within a size range of 50 to 200 base pairs, it may be employed for the quantitative assessment of competitive PCR.

PMID: 7695100 [PubMed - indexed for MEDLINE]

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PubMed	Nucleotide	Protein	Genome	Structure	PMC	Taxonomy	OMIM	B
Search	PubMed	<input checked="" type="checkbox"/>	for	Pair of dyes and PCR			Preview	Go
<input checked="" type="checkbox"/> Limits <a href="#">Preview/Index</a> <a href="#">History</a> <a href="#">Clipboard</a> <a href="#">Details</a>								

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Search	Most Recent Queries	Time	Result
#26	Search <b>Pair of dyes and PCR</b> Field: All Fields, Limits: Publication Date to 2001/12/04	11:08:01	<u>80</u>
#25	Search <b>Pair of dyes and PCR</b>	10:57:49	<u>101</u>
#24	Search <b>Pair of dyes and PCR and HCV</b>	10:57:43	<u>0</u>
#23	Search <b>Pair of dyes and PCR</b>	10:57:35	<u>101</u>
#22	Search <b>Pair of dyes and VIC</b>	10:57:10	<u>1</u>
#21	Search <b>Pair of dyes and TAMRA</b>	10:56:50	<u>1</u>
#20	Search <b>Pair of dyes and TAMRA and VIC</b>	10:56:38	<u>0</u>
#18	Search <b>Pair of dyes and probe</b>	10:55:33	<u>99</u>
#17	Search <b>paris of dyes and probe</b>	10:55:10	<u>0</u>
#15	Search <b>Lewinski M</b>	10:54:13	<u>12</u>
#14	Search <b>Ressell B</b>	10:53:48	<u>0</u>
#13	Search <b>Baumann R and hepatitis</b>	10:53:29	<u>0</u>
#12	Search <b>Hamdan H</b>	10:52:44	<u>19</u>
#11	Search <b>baumann R and HCV</b>	10:52:19	<u>0</u>
#10	Search <b>Lewinski M</b>	10:51:30	<u>12</u>
#9	Search <b>Buamann R and Lewinski M</b>	10:51:23	<u>0</u>
#8	Search <b>Buamann R</b>	10:51:08	<u>270147</u>
#6	Search <b>Rosenstraus M and Spadoro JP</b>	10:43:58	<u>4</u>
#5	Search <b>Rosenstraus M aand Spadoro JP</b>	10:43:52	<u>0</u>
#3	Search <b>Livak KJ 1995</b>	10:40:47	<u>5</u>
#1	Search <b>Holland PM 1991</b>	10:39:06	<u>1</u>

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=> TagMan  
L1 11 TAGMAN

=> Fluorogenic and L1  
3680 FLUOROGENIC  
1 FLUOROGENICS  
3680 FLUOROGENIC  
(FLUOROGENIC OR FLUOROGENICS)  
L2 2 FLUOROGENIC AND L1

=> L1 and HCV  
6907 HCV  
17 HCVS  
6911 HCV  
(HCV OR HCVS)  
L3 0 L1 AND HCV

=> "VIC and TAMRA"  
1633 "VIC"  
17 "VICS"  
1643 "VIC"  
( "VIC" OR "VICS")  
L4 503 "TAMRA"  
5 "VIC AND TAMRA"  
( "VIC" (1W) "TAMRA")

=> PCR and L4  
127217 PCR  
706 PCRS  
127332 PCR  
(PCR OR PCRS)  
L5 5 PCR AND L4

## WEST Search History

DATE: Wednesday, October 08, 2003

<u>Set Name</u> side by side	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u> result set
<i>DB=USPT; THES=ASSIGNEE; PLUR=YES; OP=ADJ</i>			
L8	L1 and probe	8	L8
L7	L6	2	L7
<i>DB=USPT,PGPB,JPAB,EPAB,DWPI; THES=ASSIGNEE; PLUR=YES; OP=ADJ</i>			
L6	L5 and FAM	24	L6
L5	L4 and VIC	25	L5
L4	L3 and TAMRA	32	L4
L3	L1 and fluorescence	41	L3
L2	L1 and (pair of dyes)	0	L2
L1	TagMan	46	L1

END OF SEARCH HISTORY